



HSE Prescribing Protocol
Elosulfase alfa (Vimizim®)
for
Mucopolysaccharidosis IVa

This document is intended for use by healthcare professionals only.

This guideline should be used in conjunction with the full prescribing and administration details in the Elosulfase alfa (Vimizim®) Summary of Product Characteristics (SmPC)

https://www.ema.europa.eu/en/documents/product-information/vimizim-epar-product-information_en.pdf

INDICATION FOR USE¹

TREATMENT	INDICATION	ICD10	PROTOCOL CODE
Elosulfase alfa (Vimizim®)	Treatment of patients with Mucopolysaccharidosis, type IVa (Morquio A Syndrome) in patients of all ages	E76.210	ERT006

TREATMENT¹

TREATMENT	DOSE	ROUTE	FREQUENCY	INFUSION TIME
Elosulfase alfa (Vimizim®)	2 mg/kg	IV Infusion	Weekly	Run over 4 hours. The infusion time may be decreased stepwise as per SmPC if tolerated.

This treatment should be supervised by a physician experienced in the management of patients with MPS IVA disease.

Because of the potential for hypersensitivity reactions with elosulfase alfa, patients should receive antihistamines with or without antipyretics 30 to 60 minutes prior to start of infusion.

Administration of elosulfase alfa should be carried out by an appropriately trained healthcare professional with the ability to manage medical emergencies. Home administration under the supervision of an appropriately trained healthcare professional may be considered for patients who are tolerating their infusions well.

ELIGIBILITY CRITERIA

- Indication as above
- All patients must have confirmed enzymatic test, elevated urinary Keratan Sulfate and/or mutation analysis
- Age appropriate baseline assessments have been obtained
- Patient must attend for medical appointments and investigations as determined by the clinical team

EXCLUSION CRITERIA

- The presence of another life-threatening illness or disease where the prognosis is unlikely to be improved by enzyme replacement therapy
- The patient has a lung capacity (FVC) of less than 0.3 litres and requires ventilator assistance
- The patient is unable to comply with the associated monitoring criteria, including attending all required clinic visits

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Protocol Code: ERT006	Approved by: Dr Mike O'Connor National Clinical Advisor & Group Lead, Acute Hospitals	Contributors: The National HSE ERT Steering Committee	
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CONTRAINDICATIONS¹

- Hypersensitivity to elosulfase alfa or to any of the known excipients

BASELINE TESTS AND MONITORING²

Once diagnosed, patients should undergo regular comprehensive assessments to evaluate the outcomes of therapy. Table 1: Recommended schedule of assessments

Assessment	Baseline	6 monthly	Annually
Pulmonary Function Tests (where able)	X		X
Urine Keratan Sulfate	X		X
Echo and cardiac assessment	X		As determined by cardiologist
QOL questionnaire and pain tool	X		X
6 Minute Walk Test (6MWT)	X		X
Clinical assessment	X	X	
Blood tests – FBC, LFTs, ERT antibodies if available, renal, TFTs, bone profile and vitamin D	X		As clinically indicated

SPECIAL WARNINGS AND PRECAUTION FOR USE¹

See SmPC for full details.

STOPPING CRITERIA

- Patient is unable to tolerate infusions due to infusion related severe adverse events that cannot be resolved
- Patient is unable to comply with assessments for continued therapy
- Patient fails to meet the criteria as defined below under naïve responder or long term patient
- Patients will cease to qualify for treatment if they miss more than 5 infusions in any 12 month period, excluding medical reasons for missing dosages. Missed infusions must be medically approved. No more than 2 infusions should be consecutively missed unless for a medical reason
- Coexisting illness where either long-term quality of life or expected survival is such that the patient will gain no significant benefit from specific treatment for MPS IVa

Patients who discontinue ERT will continue to be monitored for disease deterioration and supported with other clinical measures. These patients should continue to be assessed to allow gathering of relevant clinical information to assess a patient’s on-going care needs.

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Response to treatment will be assessed annually in both groups as below:

1. Treatment Naïve Patient (for patients who have never received treatment)

Response is defined by demonstration of a least **four out of five of the following** criteria in the first year of treatment:

- Improvement in 6 minute walking test (6MWT) or 25ft Ambulation Test of at least 10% improvement over baseline, or stabilization after plateauing to a 10% improvement.
- Improvement in FVC or FEV-1 measured with standard spirometry of 5% over baseline in the first year or stabilization after the first year. Tests should be delayed if the patient is unwell.
- Stabilization defined as no adverse change in the numerical value in two of the following three measures:
 - The score of Quality of Life as measured by utility derived from EQ5D-5L scores OR caregiver burden as measured by MPS HAQ Caregiver Domain
 - Beck depression score as appropriate
 - Appropriate pain scale Wong-Baker FACES Pain Rating Scale or Numeric Pain Scale
- Reduction in urinary Keratan Sulfate excretion from baseline of at least 20%
- No significant decline in cardiac function (i.e. ejection fraction decline of less than 10% from baseline as measured by echocardiogram)

2. Patients Currently on Treatment

Patients ‘currently on treatment’ are: (i) clinical trial patients; (ii) patients otherwise already receiving treatment on compassionate use; (iii) patients who started on treatment during the term of the guidelines and have been receiving treatment for over 12 months and (vi) patients who are receiving funding for treatment for over 6 months.

Response is defined by demonstration of a least **four out of five of the following** criteria:

- 6 Minute Walk Test or 25ft Ambulation Test remains 5% above baseline value at start of treatment with same limitations as for treatment naïve patients
- FVC and FEV-1 remain 2% above baseline at start of treatment
- Urinary Keratan Sulfate excretion remain reduced at least 20% from baseline value
- Stabilization is defined as no adverse change in the numerical value in the following measures:
 - Quality of Life Score as measured by EQ5D-5L scores
 - Use of age appropriate pain tool.
- No significant decline in cardiac function. (i.e. decline in ejection fraction of less than 10%) from baseline as measured by annual echocardiogram

ADVERSE EFFECTS¹

See SmPC for full details.

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DRUG INTERACTIONS¹

No formal medicinal product interaction studies have been conducted with elosulfase alfa.

ATC CODE

Elosulfase alfa A16AB12

FUNDING FOR TREATMENT

ERT patients within the public health system will be funded for their treatment by the Health Service Executive (HSE). Prior funding agreement will be sought before initiation of treatment for eligible patients. Once approval for funding has been received treatment can be initiated. All new patients and dose increases for existing patients require prior approval via the HSE National Enzyme Replacement Therapy (ERT) Steering Committee. Patient applications can be made and sent to aidmp@hse.ie.

OTHER INFORMATION

The enzyme replacement treatment (ERT) outlined in this guideline should be initiated in an appropriate setting for the management of MPSIVa with a specialist, consultant led, experienced multidisciplinary team who are part of the tertiary treatment centres at the National Centre for Inherited Metabolic Disorders (NCIMD) Mater Misericordiae University Hospital or at Children Health Ireland.

Local primary and secondary care clinicians will undertake to ensure all patients with are referred to the specialist teams in one of the above named tertiary centres. Collaboration between the tertiary treatment centres and local primary and secondary care services is imperative to ensuring patients with MPSIVa receive high standards of care.

REFERENCES

1. Summary of Product Characteristics Vimizim 1mg/ml concentrate for solution for infusion. Available from: https://www.ema.europa.eu/en/documents/product-information/vimizim-epar-product-information_en.pdf Accessed on: 17/10/2024
2. Expert Clinical Opinion, Consultant Paediatrician, National Centre for Inherited Metabolic Disorders.

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APPENDIX

The HSE National Enzyme Replacement Therapy Steering Committee Membership November 2024:

- Acting Chair: Carol Ivory, General Manager, Specialist Acute Services, Access and Integration
- Deputy Chair: Ms Fionnuala King, Chief Pharmacist, Access and Integration Drug Management Programme
- Prof Ellen Crushell, Consultant Paediatrician, National Centre for Inherited Metabolic Disorders, CHI at Temple Street
- Dr Joanne Hughes, Consultant Metabolic Paediatric Physician & Clinical Lead, National Centre for Inherited Metabolic Disorders, CHI at Temple Street
- Prof Ahmad Monavari, Consultant Metabolic Paediatrician, Clinical Director, National Centre for Inherited Metabolic Disorders, CHI at Temple Street
- Dr James O’Byrne, Consultant in Biochemical/ Clinical Genetics, National Centre for Inherited Metabolic Disorders, Mater Misericordiae University Hospital
- Ms Eithne Losty, Lysosomal Storage Disorders Clinical Nurse Specialist, CHI at Temple Street
- Mr Gerry Greville, Interim ACFO, Acute Hospitals Finance, HSE Finance
- Lisa Kenny, HSE Primary Care Reimbursement Service Representative
- Ms Rhona O’Neill, Chief II Pharmacist, Access and Integration Drugs Management Programme

HSE National Enzyme Replacement Therapy Steering Committee Position Statement:

Patient care for ERT should be led by the centres of excellence with access to a multidisciplinary team with specialist interest in the management of patients with inherited Lysosomal Storage Disorders.

REVISION HISTORY

Revision Number	Revision Date	Summary of Changes

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